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# 广东丰顺地区老年高血压患者的危险因素及合并症的特征\*

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**摘要 目的:**分析广东省丰顺地区老年高血压患者的临床特点,为临床治疗该地区老年高血压病提供参考。**方法:**选取广东省丰顺县人民医院等共3所医院2015年1月至2016年1月收治的老年高血压患者827例,并对所收集的临床资料进行整理,回顾性分析该地区老年人高血压心脑血管危险因素分布特征及其合并症的发生情况。**结果:**本次纳入研究的827例老年高血压患者中,男性409人,占49.5%,女性418人,占50.5%,平均年龄(75.32±8.74)岁。其中,34.23%存在血脂异常,15.60%有吸烟史,4.47%有高血压家族史,肥胖占2.06%,23.10%合并糖尿病,29.02%合并冠心病,5.20%合并心力衰竭,28.78%合并脑血管疾病,25.83%合并肾功能不全。不同高血压级别合并脑血管病、冠心病、心力衰竭、肾功能不全的发生率存在显著差异( $P=0.047$ ,  $P<0.001$ ,  $P=0.026$ ,  $P=0.041$ ),而吸烟、血脂异常、肥胖、糖尿病的占比差异无统计学意义( $P>0.05$ )。**结论:**广东省丰顺地区老年高血压患者在心脑血管病危险因素中所占比重最大的是血脂异常,合并冠心病及脑血管疾病比例最大,这可能与血脂异常有着密切的关系。

**关键词:**丰顺地区;高血压病;危险因素

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## The Characteristics of Cardiovascular Risk Factors and Combination in Elderly Hypertensive Patients in Fengshun Area\*

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**ABSTRACT Objective:** To analyze the clinical characteristics of hypertension in the elderly in Fengshun area of Guangdong Province and provide references for the treatment. **Methods:** 827 cases of elderly hypertensive patients in Fengshun County People's Hospital and other 2 hospitals from January 2015 to January 2016 were selected for this study. The clinical data were collected to analyze the distribution characteristics of risk factors and combination in elderly hypertensive patients retrospectively. **Results:** There were 827 cases of patients enrolled in the study, 409 were male, accounting for 49.5%, while 418 cases were female, accounting for 50.5%. The average age was (75.32 ± 8.74), among which 34.23% were dyslipidemia, 15.60% had a history of smoking. Four point forty-seven percent had a hypertension family history and 2.06% were obesity. There were 23.10% participants with diabetes mellitus, 29.02% with coronary heart disease, 5.20% with heart failure, 28.78% with cerebrovascular disease, and 25.83% with renal insufficiency. There were statistical differences in the percentage of cerebrovascular disease, coronary heart disease, heart failure and renal insufficiency between different blood pressure levels. **Conclusion:** Dyslipidemia accounted for the largest proportion of risk factors in elderly patients with hypertension in Fengshun area of Guangdong Province and coronary heart disease and cerebrovascular disease were the largest combination, which may have close relationship with dyslipidemia.

**Key words:** Fengshun area; Hypertension; Risk factors

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### 前言

高血压病是一种老年人常见的心血管疾病,长期高血压会导致脑血管疾病、冠心病、心力衰竭、肾功能不全等各种并发症,严重影响患者的生活质量<sup>[1-4]</sup>。老年高血压病的患病率及血压水平随年龄增加而增高,危害性很大<sup>[5]</sup>。对于高血压患者而言,并存的心脑血管危险因素会增加不良预后的风险<sup>[6-8]</sup>。各种

心脑血管危险因素间相互合并组合可促进高血压病程的进展,诱发高血压患者发生各种不良心血管事件<sup>[9]</sup>。虽然人们已经开始重视高血压的防治,但基本上都只重视血压的控制,容易忽视对高血压心脑血管病危险因素的干预<sup>[10,11]</sup>。在广东省丰顺地区,我们为了充分了解老年高血压患者心脑血管危险因素分布特点及其合并症(包括冠心病、心力衰竭、脑血管疾病、肾功能不全、糖尿病)的情况,本研究回顾分析了丰顺县医院及其他

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2 所医院近一年收治的 827 例老年高血压患者的临床资料,以促进临床医生对老年高血压患者心脑血管危险因素的重视,及早采取相应的干预治疗措施,改善老年高血压患者的预后。

## 1 资料和方法

### 1.1 一般资料

按照相应的纳入及排除标准<sup>[12]</sup>,选取广东丰顺地区 2015 年 1 月到丰顺县 3 所医院治疗的老年高血压患者共计 827 例,其中男性 409 人,占 49.5%,女性 418 人,占 50.5%。所有患者年龄范围为 60-89 岁,平均年龄为(75.32± 8.74)岁。根据患者住院原始病历记录获取相关临床资料,回顾分析广东省丰顺地区老年高血压患者的高血压家族史、肥胖、吸烟、血脂异常等危险因素分布特点,合并冠心病、心力衰竭、脑血管疾病、肾功能不全、糖尿病的情况以及不同高血压级别间相关危险因素、合并症的差异。

### 1.2 方法

1.2.1 纳入标准<sup>[13]</sup> ① 高血压:在非同日 3 次测量血压,收缩压≥ 140 mmHg 和(或)舒张压≥ 90 mmHg;② 患者既往有高血压史,目前正在服用降压药物;③ 患者年龄大于 60 岁。

1.2.2 排除标准<sup>[13]</sup> ① 患者合并其他全身或局部影响生命的严重疾病,如恶性肿瘤、白血病等;② 患者合并严重的外伤及创伤;③ 患者临床资料不完善者。

1.2.3 评价指标<sup>[14]</sup> ① 肥胖:体质指数(BMI)≥ 28 kg/m<sup>2</sup>,定

义为肥胖。② 糖尿病:FPG ≥ 7.0 mmol/L 或随机血糖≥ 11.1 或 75 g,OGTT2h PG≥ 11.1,定义为糖尿病。③ 血脂异常:HDL-C < 1.04 mmol/L 为低高密度脂蛋白胆固醇血症;TG ≥ 2.26 mmol/L 为高甘油三酯血症;TC ≥ 6.22 mmol/L 和 (或)LDL-C ≥ 4.14 mmol/L 为高胆固醇血症;如有一项或一项以上指标达到上述诊断标准,即定义为血脂异常。④ 肾功能不全:校正的肌酐清除率 < 60 mL/min/1.73 m<sup>2</sup>,定义为肾功能不全。

### 1.3 统计学分析

使用 SPSS 17.0 进行统计学分析,计数资料以率表示,组间比较采用卡方检验、Fisher 精确检验,计量资料以均数± 标准差表示,组间比较采用 t 检验,以 P < 0.05 为差异有统计学意义。

## 2 结果

### 2.1 相关危险因素、合并症的分布特点

在 827 例丰顺地区老年高血压患者中,有高血压家族史患者 37 例,占总数的 4.47%;肥胖患者 17 例,占 2.06%;有吸烟史的 129 例,占 15.60%;在已查血脂的 666 例患者中,血脂异常的有 228 例,占 34.23%。同时合并糖尿病者 191 例,占总数的 23.10%;合并有脑血管病者 238 例,占 28.78%;合并有冠心病者 240 例,占总数的 29.02%;合并有心力衰竭者 43 例,占 5.20%;在已查肾功能的 778 例患者中,合并肾功能不全者 201 例,占 25.83%。详见表 1。

表 1 广东省丰顺地区老年高血压患者相关危险因素、合并症的分布特征

Table 1 The distribution features of complications and correlative risk factors in elderly patients with hypertension of patients of Guangdong fengshun

| Complications and correlative risk factors | Total NO. | Case NO. | Ratio(%) |
|--------------------------------------------|-----------|----------|----------|
| Family medical history                     | 827       | 37       | 4.47     |
| Obesity                                    | 827       | 17       | 2.06     |
| Smoking history                            | 827       | 129      | 15.60    |
| Abnormal blood lipid                       | 666       | 228      | 34.23    |
| Diabetes                                   | 827       | 191      | 23.10    |
| Cerebrovascular disease                    | 827       | 238      | 28.78    |
| Coronary disease                           | 827       | 240      | 29.02    |
| Heart failure                              | 827       | 43       | 5.20     |
| Renal insufficiency                        | 778       | 201      | 25.83    |

### 2.2 不同高血压级别间相关危险因素、合并症的差异

以血压高低分为 1 级、2 级、3 级,分析高血压不同级别间吸烟、血脂异常、肥胖、脑血管病、冠心病、心力衰竭、糖尿病、肾功能不全之间是否存在差异。如表 2 所示,不同高血压级别间合并脑血管病、冠心病、心力衰竭、肾功能不全者比例差异存在统计学意义(P=0.047, P<0.001, P=0.026, P=0.041),且高血压级别越高,脑血管病、冠心病、心力衰竭、肾功能不全的患病率越高;不同高血压级别间合并吸烟、血脂异常、肥胖、糖尿病者比例差异无统计学意义(P>0.05)。详见表 2。

## 3 讨论

高血压作为一种最常见的心血管疾病严重危害人类健康,与饮酒、吸烟、高盐饮食、肥胖、生活压力大等多种因素密切相

关<sup>[15]</sup>。众多研究表明影响高血压患者长期预后的心脑血管危险因素主要包括年龄、吸烟、糖耐量受损、血脂异常、早发家族史、肥胖<sup>[16]</sup>。其中,高血压合并高脂血症会加速血脂沉积在血管壁,长期积累下来导致动脉粥样硬化斑块形成,使血管腔变窄,并可发生斑块可破裂成血栓,导致严重心脑血管疾病,甚至死亡。随着年龄的增长,老年人不仅高血压患病率增加,且同时合并其他心脑血管病危险因素(例如肥胖、血脂异常、糖尿病等)或靶器官损害的情况也增加。但长期以来,人们忽视高血压心脑血管病危险因素的干预,也缺乏对老年人高血压与多种疾病并存情况的了解,对老年人高血压的防治仍然存在许多不足之处<sup>[17]</sup>。

本研究选取广东省丰顺地区 3 所医院 2015 年 1 月至 2016 年 1 月收治的老年高血压患者 827 例,并对所收集的临床资料进行整理和分析,结果显示:34.23%老年高血压患者存

表 2 不同高血压级别间相关危险因素、合并症的情况比较

Table 2 Comparison of the complications and risk factors between the patients with different levels of hypertension

| Complications and risk factors | Hypertension I | Hypertension II | Hypertension III | Total NO. | P     |
|--------------------------------|----------------|-----------------|------------------|-----------|-------|
| Smoking                        |                |                 |                  |           |       |
| Yes                            | 20             | 41              | 68               | 129       | 0.895 |
| No                             | 120            | 218             | 360              | 698       |       |
| Abnormal blood lipid           |                |                 |                  |           |       |
| Yes                            | 41             | 68              | 119              | 228       | 0.790 |
| No                             | 70             | 137             | 231              | 438       |       |
| Obesity                        |                |                 |                  |           |       |
| Yes                            | 5              | 4               | 8                | 17        | 0.366 |
| No                             | 135            | 255             | 420              | 810       |       |
| Cerebrovascular disease        |                |                 |                  |           |       |
| Yes                            | 30             | 71              | 137              | 238       | 0.047 |
| No                             | 110            | 188             | 291              | 589       |       |
| Coronary disease               |                |                 |                  |           |       |
| Yes                            | 33             | 58              | 149              | 240       | 0.001 |
| No                             | 107            | 201             | 279              | 587       |       |
| Heart failure                  |                |                 |                  |           |       |
| Yes                            | 1              | 11              | 31               | 43        | 0.026 |
| No                             | 139            | 248             | 397              | 784       |       |
| Diabetes                       |                |                 |                  |           |       |
| Yes                            | 35             | 58              | 98               | 191       | 0.832 |
| No                             | 105            | 201             | 330              | 636       |       |
| Renal insufficiency            |                |                 |                  |           |       |
| Yes                            | 25             | 58              | 118              | 201       | 0.041 |
| No                             | 108            | 184             | 285              | 577       |       |

在血脂异常,15.60%老年高血压患者有吸烟史,2.06%老年高血压患者合并肥胖,4.47%老年高血压患者有高血压家族史。由此可见,丰顺地区老年高血压在心脑血管病危险因素中所占比例最高的是血脂异常,占34.23%,这可能与该地区饮食习惯相关,因为该地区以高盐、肉食为主。血脂异常更容易使血中的脂质逐渐在血管内壁沉积,导致管壁增厚、管腔变窄、弹性减退,最终形成动脉粥样硬化<sup>[18]</sup>。对于同一血压水平的患者而言,血脂异常会增加动脉粥样硬化的风险,其发生心脑血管疾病的可能性更大<sup>[19,20]</sup>。血清总胆固醇水平升高,特别是LDL胆固醇升高,同时合并有高血压,更容易促进脂质沉积在血管壁上,加上局部炎症反应促进动脉粥样硬化斑块的形成。由于血脂异常具隐匿性,无明显症状,对于丰顺地区人们而言,有些人不能尽早发现或发现后不以为然,未曾采取早期调脂措施,这往往为以后心脑血管疾病的发生埋下了隐患<sup>[21]</sup>。因此,防治丰顺地区心脑血管疾病不仅要控制血压,同时也要加大普查血脂的宣传力度,从而促进该地区高血压患者血脂检查的普及,并且对血脂异常的高血压患者采取相应防治措施<sup>[22]</sup>。本研究中,有家族史的高血压病患者占比较低,可能是与本研究统计的老年人高血压患者对高血压家族史不知晓有关。

在各种合并症的分布情况中,23.10%合并糖尿病,29.02%

合并冠心病,5.20%合并心力衰竭,28.78%合并脑血管疾病,25.83%合并肾功能不全。值得指出的是,丰顺地区老年高血压合并冠心病比例最高,这可能与血脂异常、吸烟有着密切的关系。冠心病是危及患者生命的最主要疾病之一,故需要加强丰顺地区冠心病的二级预防治疗,以改善老年高血压患者的长期预后。另外,该地区老年高血压病合并脑血管疾病的比例也很高,这可能与该地区老年高血压患者血压控制不良有关。长期高血压可导致脑小动脉硬化,其动脉壁出现平滑肌肥大、增生,血管壁增厚,使脑自动调节移向较高的血压水平,从而使患者对动脉压骤降的代偿能力下降,可引起脑灌注不足而导致脑组织缺血发生腔隙性脑梗塞。再者,严重高血压长期高血压导致脑内小动脉硬化,发生病理性变化则会引发高血压性脑出血。脑血管疾病的出现,轻者致残,重者危及生命,不仅会严重影响患者生活质量,也给患者的家庭带来重大的负担<sup>[23]</sup>。因此,要改善老年高血压患者的长期预后,预防脑血管疾病的发生是必不可少的<sup>[24,25]</sup>。有相当一部分老年高血压患者合并肾功能不全,可能与血压控制不理想相关,但也不能排除与该地区人们饮用水相关,因为该地区人们的饮用水多为山泉水<sup>[26]</sup>。相关研究结果提示高血压和糖尿病关系十分密切<sup>[27,28]</sup>。目前,高糖高脂高热量食品摄入的增加以及居民运动量的减少导致高血压及糖尿病

患病人数逐年升高,其中很突出的一个群体就是老年人群,老年人群无论高血压、糖尿病还是二者并发的患病率均远远高于其他年龄段人群。老年高血压患者患2型糖尿病的风险是血压正常人群的2.5倍,而2型糖尿病患者高血压患病率高达80%以上。高血压影响糖尿病患者血糖控制,而高血糖反过来又促进高血压患者发生新的物质(如血脂增高)代谢异常,并且年龄增长是促进高血压与糖尿病相互影响的重要因素。若患者同时合并高血压和糖尿病,发生心血管事件的几率会更高<sup>[29,30]</sup>。因此,相比普通的高血压患者,高血压合并糖尿病患者更应该配合医生积极采取降压措施,选择正确的降压药,避免发生血压反复,对可逆的危险因素予以严格控制。丰顺地区老年人高血压患者同时合并糖尿病所占的比例也较高,因此一定要对血糖加以控制,及早对糖尿病等糖代谢异常进行干预。在分析不同高血压级别间吸烟、血脂异常、肥胖、脑血管病、冠心病、心力衰竭、糖尿病、肾功能不全的差异中,我们发现高血压级别越高,脑血管病、冠心病、心力衰竭、肾功能不全的发生率越高。

综上所述,在临床实践中,及早发现患者的各种危险因素,有针对性地各种危险因素进行干预,有助于提高患者的血压达标率,预防心血管事件及并发症的发生,提高高血压患者的生活质量,降低病死率,帮助丰顺地区老年高血压患者获得更好的长期预后。

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诊手术围术期炎症反应的常用指标<sup>[17]</sup>。PCT 亦属于急性蛋白,能反映出机体免疫反应、炎症程度等状况,可用于手术创伤的监测<sup>[18]</sup>。有研究已证实<sup>[19]</sup>血清 PCT 水平在预测急性阑尾炎患儿病情方面具有一定临床价值。李凤珠等<sup>[20]</sup>研究也表明急性阑尾炎患儿早期血清 CRP、PCT 均显著升高,CRP、PCT 可作为鉴别诊断急性阑尾炎的重要参考指标。本研究结果显示与术前 12 h 时相比,两组术后 24、48 h 时血清 CRP、PCT 水平,均显著升高;说明无论 LA 还是 OA 均可对患儿机体造成损伤,诱发机体炎症反应。两组术后 48h 时血清 CRP、PCT 水平较术后 24 h 时均显著降低;与对照组同期对比,观察组术后 24、48 h 时血清 CRP、PCT 水平均显著更低,表明 LA 更能有效控制患儿的炎症反应程度、缩短炎症持续的时间。这也可从血清学的角度佐证,LA 对患儿机体的损伤较小,微创手术效果佳。

综上所述,与开腹手术相比,腹腔镜手术治疗穿孔性阑尾炎患儿具有创伤小、手术时间短、术后并发症少等优势,能更有效降低血清 CRP、PCT 水平,促进患儿术后恢复。

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